

United States Government

Department of Energy
Bonneville Power Administration

memorandum

DATE: July 23, 2002

REPLY TO
ATTN OF: KEP-4

SUBJECT: Supplement Analysis for the Transmission System Vegetation Management Program FEIS
(DOE/EIS-0285/SA 87 Cowlitz Tap- Chehalis-Covington 1-6.

TO: Don Atkinson – TFN/Snohomish

Proposed Action: Vegetation Management along the Cowlitz Tap-Chehalis-Covington transmission line from structure 1/1 through structure 6/12. Right of way width is 125 feet.

Location: The project area is located within Pierce County, Washington.

Proposed by: Bonneville Power Administration (BPA).

Description of the Proposal: BPA proposes to remove unwanted vegetation along the right-of-way, access roads and around tower structures along the subject transmission line corridor. The right-of-way will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Approximately 5 miles of access roads will be cleared using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Approximately 69 tower sites will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Vegetation management is required for unimpeded operation and maintenance of the subject transmission line. See Section 1 of the attached checklist for a complete description of the proposal.

Analysis: Please see the attached checklist for the resources present. Applicable findings and mitigation measures are discussed below.

Planning Steps:

1. Identify facility and the vegetation management need.

Unwanted vegetation, reclaim trees and danger trees will be removed and/or controlled using selective and nonselective methods that will include hand cutting, mowing, and herbicidal treatment. All methods of herbicide treatment will be used (except aerial) dependent on site conditions/restrictions. This proposal covers approximately 94.7 acres of land between towers 1/1 through 6/12.

2. *Identify surrounding land use and landowners/managers and any mitigation.*

The subject corridor traverses private, City of Tacoma, and Pierce County used for residential, rural residential, farming and grazing purposes. No other federal and no tribal lands are involved.

Landowners requiring notification or under tree and brush agreements are shown in Section 2.4 of the attached checklist. Any remaining landowners will be contacted (letters, personal contact, door hangers, etc.) by BPA before and during the project. Any input received will be incorporated into the prescription/cut sheets.

3. *Identify natural resources and any mitigation.*

Section 3 of the attached checklist identifies the natural resources present in the area of the proposed work. The following resources found along with applicable mitigation measures:

Riparian Habitat: Includes all wetlands, streams, and creeks meeting the definition of riparian habitat. Many areas were identified. See Section 3.1 for a complete listing.

Riparian Habitat Mitigation:

- County or private lands, within 30.5 m (100 ft.) of a stream or open water. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. On slopes less than 20% there will be no disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no disturbance within the buffer.
- Within 50 ft. to edge of surface water only cut-stump and localized chemical treatments using practically non-toxic to slightly toxic formulations of glyphosate, imazapyr, and metsulfuron-methyl (Escort). Moderately toxic to very highly toxic herbicides (to aquatic species) or those herbicides containing a groundwater or surface water label advisory will not be used in this zone. Triclopyr (Garlon 4) may be used only more than 100 ft. from streams or water.

Drinking Water Supply Mitigation:

- Water retention ponds and water wells: See section 3.2 of the attached checklist for location water supply facilities. No chemical application within a 100-foot radius of retention ponds, springs and water wells.

T & E Species: Review of BPA databases show no T & E species in the project area. See section 3.3 of the attached checklist for a salmon restoration creek, located at 1/10+200 to 1/11+520. No herbicides will be applied within 300 feet of high water mark.

4. *Determine vegetation control and debris disposal methods.*

Vegetation will be removed using manual, mechanical, and chemical methods. Debris will be disposed onsite using either chip, lop and scatter, or mulch techniques as described in Section 5 of the attached checklist.

5. *Determine re-vegetation methods, if necessary.*

Re-vegetation needs will be determined onsite. Any areas identified with limited ground cover will be replanted with native plant species.

6. Determine monitoring needs.

The entire project will be inspected during the work period, and, the line will be patrolled annually after treatment to monitor the effectiveness of the treatment measures. Environmental monitoring to ensure sound application practices will be determined in the future as outlined in the BPA/NMFS/USFWS Biological Assessment currently being prepared.

7. Prepare appropriate environmental documentation.

Findings: This Supplement Analysis finds that 1) the proposed actions are substantially consistent with the Transmission System Vegetation Management Program FEIS (DOE/EIS-0285) and ROD, and; 2) there are no new circumstances or information relevant to environmental concerns and bearing on the proposed actions or their impacts. This Supplement Analysis also finds the proposed actions will not affect threatened or endangered species. Therefore, no further NEPA or ESA documentation is required.

/s/ Mark A. Martin

Mark A. Martin
Environmental Protection Specialist

CONCUR /s/ Thomas C. McKinney
Thomas C. McKinney
NEPA Compliance Officer

DATE: 07/26/2002

Attachment

cc:

L. Croff – KEC-4
T. McKinney – KEC-4
P. Key – LC-7
M. Hermeston – KEP-4
J. Meyer – KEP-4
J. Sharpe – KEPR-4
M. Martin – KEPR/Covington
M. Johnson – TF/DOB-1
S. Davis – TFN/Snohomish
L. Alvarez – TFN/Snohomish
R. Sweet – TFNF/Snohomish
Environmental File – KEC-4
Official File – KEP-4 (EQ-14)

Vegetation Management Checklist
Tacoma-Cowlitz Tap to Chehalis-Covington
1/1 – 6/12

Prepared By: **Don Atkinson**
Natural Resource Specialist
July 11, 2002

1. IDENTIFY FACILITY AND THE VEGETATION MANAGEMENT NEED

1.1 Describe Right-of-way.

Corridor Name	Corridor Length & kV	Easement width	Miles of Treatment
Tacoma-Cowlitz Tap to Chehalis-Covington	1/1 to 6/12 230kv	125'	Approx. 7 miles

See Handbook — List of Right-of-way Components for checkboxes and the requirements for the components Rights-of-way, Access Roads, Switch Platforms, Danger Trees, and Microwave Beam paths.

Right Of Way:

Right-Of-Way – Clearing trees and brush within the right-of-way and treating with herbicides. The right-of-way will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. Herbicide treatments will include spot treatment (stump treatment, basal treatment, and/or spot foliar), or localized treatments (including broadcast application and cut stubble treatments). The total project area consists of approximately 94.7 acres. It is estimated that approximately 92 acres of the project area will be cut.

Access Road Clearing – Approximately 5 miles of clearing using selective and non-selective methods that include hand cutting, mowing and herbicide treatments.

Transmission Structures – Approximately 69 tower sites will be treated using selective and non-selective methods that include hand cutting, mowing and herbicide treatments. The herbicide treatments include spot (cut stump or basal treatment), localized and broadcast applications including cut stubble treatments.

Clearing Requirements:

- Control all tree and brush species within about 30 ft. of transmission structures. Cut stumps are not to be taller than 2 – 4 inches.
- Pull all debris and slash out of the 30-ft. area around transmission structures.
- Access Road Clearing Requirements: - (there are approximately miles 30 of machine and hand cutting)
- Control all vegetation except grasses, to enable safe driving.
- The access road is to be 14 to 25 ft. wide with a 15-ft.- high clearance. Limbs should not hang down into the access road.
- Cut stumps are not to be taller than 2 – 4 inches in the roadbed.
- Cut stumps horizontal to the ground to prevent personal injuries and tire puncture.
- Trim limbs back as flush to the trunk as possible when trees are rooted outside of the access road.
- Pull all debris back from the access road as prescribed.
- Cut stumps horizontal to the ground to prevent personal injuries and tire puncture.
- Trim limbs back as flush to the trunk as possible when trees are rooted outside of the access road.
- Pull all debris back from the access road as prescribed.

Reclaim (“C”) Trees – C trees will be cut as part of this project.

Danger Trees (off right-of-way): – All off-right-of-way trees (danger trees) that are marked as potentially unstable, or trees that are identified during the project, that would fall within the minimum approach distance (MAD) or into the safety zone of the power line, will be cut as part of this project. Danger trees may be treated with herbicides to prevent resprouting.

1.2 Describe the vegetation needing management.

See handbook — List of Vegetation Types, Density, Noxious Weeds for checkboxes and requirements.

Vegetation Types:

Western Red Cedar

Douglas fir

Grand fir

Hemlock

Alder

Willows – mid span or where ground to conductor clearance is low

Cottonwoods

Scotchbroom – along access roads and around structures or mid span where ground to conductor clearance is low

Blackberries - along access roads and around structures or mid span where ground to conductor clearance is low

Density:

The density is variable through the project and ranges from Low (50 stems or less per acre) to as High (250 + stems per acre).

1.3 List measures you will take to help promote low-growing plant communities. If promoting low growing plants is not appropriate for this project, explain why. See Handbook — for requirements and checkboxes.

Vegetation that will grow tall will be selectively eliminated *before* it reaches a height or density to begin competing with low-growing species. Desirable low-growing plants will not be disturbed. Only elective vegetation control methods that have little potential to harm non-target vegetation will be used.

Cut-stump or follow-up spot herbicide treatments on species that re-sprout will be carried out to ensure that the roots are killed (follow-up treatment may take place during the next growing season). Herbicides will not be applied using high volume methods to ensure that non-target species are not treated.

Note: there is no Forest Service land in this project.

1.4 Describe overall management scheme/schedule.

See Handbook - Overall Management Scheme/Schedule.

Description of the Proposed Action: The project consists of clearing unwanted vegetation within the right-of-way, around structures, and along access roads that may impede the operation and maintenance of the subject transmission line. All work will be in accordance with the National Electrical Safety Code and BPA standards. It is the goal of this project to remove the tall growing vegetation that is currently or will soon be a hazard to the transmission line. The overall goal is to develop low-growing plant communities within the right-of-way.

Initial entry – Using hand cutting or mechanical mowers, BPA will complete brush management activities on the right-of-way, access roads and towers sites, chemically treat stumps and stubbles with herbicides (spot, localized, and broadcast treatments) to ensure that the roots are killed preventing new sprouts and selectively eliminating vegetation that prevents access to the power lines. Areas may be replanted or re-seeded with low-growing vegetation or grasses if there is limited vegetation for re-establishment of the site. Cut, lop and scatter, and stump treatment (where possible to prevent re-sprouting) are the preferred methods on State and Private lands. Areas where densities are high, or that have a lot of Scotch Broom and /or blackberries will be mowed using a track mounted mowing head. Access roads and structure sites will also be mowed and chemically treated.

Subsequent entries – Follow-up/re-treatment, within the right-of-way, around structure sites, and along access roads, is planned within the next growing season. This will be done with herbicides in areas that were not treated due to adverse weather conditions, there was not a good kill, or that were not treated in the initial entry.

Future cycles – This area is being managed on a 2 to 3 year maintenance free cycle for brush and danger trees. During routine patrol, the right-of-way will be examined for tall growing trees on the right-of-way and danger trees (DT's) off the right-of-way. The overall vegetation management scheme will be to cut and treat all encumbering vegetation on the right-of-way using a combination of manual, mechanical and herbicide treatments as outlined in the initial treatment every 2 to 3 years.

2. IDENTIFY SURROUNDING LAND USE AND LANDOWNERS/MANAGERS

2.1 List the types of landowners and land uses along your corridor.

See Handbook — Landowners/Managers/Uses for requirements, and List of Landowners/Managers/Uses for a checkbox list.

Pierce County, City of Tacoma, and private landowners (rural residential, farms, grazing land).

2.2 Describe method for notifying right-of-way landowners and requesting information (i.e., door hanger, letter, phone call, e-mail, and/or meeting). Develop landowner mail list, if appropriate.

See Handbook — Methods for Notification and Requesting Information for requirements.

250 letters were sent to landowners on 7/10/02. Personal contact by BPA and/or the Contractor along with door hangers may also be made. This will be done before and during the project. The Prescription/Cut Sheets will be modified as needed based on any input received during the project.

2.3 List the specific land owner/land use measures — determined from the handbook or through your consultations with the entities — that will be applied.

See handbook — Requirements and Guidance for Various Landowners/Uses for requirements and guidance, also Residential/Commercial, Agricultural, Tribal Reservations, FS-managed lands, BLM –managed lands, Other federal lands, State/ Local Lands.

*Note-not all areas within the project area will be treated with chemicals, riparian areas, and areas where private landowners who do not want chemicals used will not be treated.

2.4 Review any existing landowner agreements (e.g. tree/brush Permits or Agreements). List in table above any provisions that need to be followed and where they are located.

See handbook — Landowner Agreements for requirements.

Tacoma-Cowlitz Tap to Chehalis-Covington (See attached maps for locations)

Span		Landowner/use	Specific measures to be applied
From	To		
2/11 + 390	2/13 + 135	Sensitive Area	Notify landowner before cutting – Thomas Kostelecky (253) 874-4766
5/9 + 380	6/1 + 150	Dan Vadney – Tree & Brush Agreement	Landowner will maintain

2.5 List any known casual informal use of the right-of-way by non-owner publics. List any constraints or measure’s to take due to the informal use.

See handbook — Casual Informal Use of Right-of-way for requirements.

None Known

2.6 List other potentially affected people, agencies, or tribes (that are not landowners/managers) that need to be notified or coordinated with. Describe method of notification and coordination.

See handbook — Other Potentially Affected Publics for requirements and suggestions.

None known, no tribal lands involved.

3. IDENTIFY NATURAL RESOURCES

See Handbook — Natural Resources

3.1 List any water resources (streams, rivers, lakes, wetlands) that may be impacted by vegetation control activities. For each water body describe the control methods and requirements or mitigation measures that will be used.

See Handbook — Water Resources for requirements for working near water resources including buffer zones.

Tacoma-Cowlitz Tap to Chehalis-Covington (See attached maps for locations)⁷

Span		Waterbody	T&E?	Treatment Zone	Herbicide	Application Technique	Buffer	Other
From	To							
1/10 + 200	1/11 + 520	Creek	yes	Riparian T&E	See below	See below	See below	Salmon Restoration
1/12 + 20	1/12 + 180	Pump House	no	Riparian	See Below	See below	See below	
1/13 + 100	1/13 + 270	Well	no	Riparian	See below	See below	See below	
2/11 + 325	2/12 + 125	Pierce County Sewer	no	Riparian	See below	See below	See below	
3/6 + 190	3/6 + 400	Water Storage Pond	no	Riparian	See below	See below	See below	
3/10 + 150	3/11 + 190	Creek	no	Riparian	See below	See below	See below	
4/11 + 165	4/12 + 20	Well	no	Riparian	See below	See below	See below	
5/7 + 380	5/7 + 579	Well	no	Riparian	See below	See below	See below	
6/1 + 400	6/1 + 540	Well	no	Riparian	See below	See below	See below	
Riparian		<p>RIPARIAN: County or private lands, within 30.5 m (100 ft.) of a stream or open water. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. On slopes less than 20% there will be no disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no disturbance within the buffer.</p> <p>Herbicides: Within 50 ft. of a stream, only cut-stump and localized treatments using practically toxic or Slightly toxic formulations of glyphosate, imazapyr, and Escort can be used up to the waters edge. Highly Toxic and very highly toxic (to fish) herbicides will not be used in this zone. Triclopyr (Garlon 4) may be used only more than 100 ft. from streams or water. See Table 111-1: Buffer width to Minimize Impacts on non-target Resources. (Transmission Vegetation Management EIS)</p>						
Riparian T&E		<p>RIPARIAN SALMON: BPA, county, or private lands, within 91.5 m (300 ft.) of a listed salmon and bull trout streams. Available: all manual and biological treatments, except grazing. On slopes less than 20% there will be no soil disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no soil disturbance within the buffer.</p> <p>Herbicides: No herbicides within 300 feet from the waters edge. From 300 feet away for stream or water, Escort, clopyralid, imazapyr, practically toxic or Slightly toxic formulations of glyphosate, and triclopyr (Garlon 3A) can be used. Highly Toxic and very Highly toxic (to fish) herbicides will not be used in this zone. Glyphosate, and triclopyr (Garlon 3A) can be used. See Table 111-1: Buffer width to Minimize Impacts on non-target Resources. (Transmission Vegetation Management EIS)</p>						

3.2 If planning to use herbicides, list locations of any known irrigation source, wells, or springs (landowners maybe able to provide this info if requested).

See Handbook — Herbicide Use Near Irrigation, Wells or Springs for buffers and herbicide restriction

Tacoma-Cowlitz Tap to Chehalis-Covington (See attached maps for locations)

Span		Wells, Irrigation or Springs	Treatment Zone	Buffer
From	To			
1/12 + 20	1/12 + 180	Pump House	Non Herbicide Area	100 ft. radius around pump house
1/13 + 100	1/13 + 270	Well	Non Herbicide Area	100 ft. radius around well head
2/11 + 325	2/12 + 125	Pierce County Sewer	Non Herbicide Area	100 ft. radius around sewer
3/6 + 190	3/6 + 400	Water Storage Pond	Non Herbicide Area	100 ft. radius around pond
4/11 + 165	4/12 + 20	Well	Non Herbicide Area	100 ft. radius around well head
5/2 + 0	5/2 + 645	Aquifer	Non Herbicide Area	100 ft. radius
5/7 + 380	5/7 + 579	Well	Non Herbicide Area	100 ft. radius around well head
6/1 + 400	6/1 + 540	Well	Non Herbicide Area	100 ft. radius around well head
NON- HERB	<p>NON-HERBICIDE AREAS Water sources, springs, wells and other sensitive lands within 100 feet of sensitive Riparian areas or water sources. Hand Cutting Methods only, no Herbicides allowed. WELLS: No herbicides allowed within 100 feet of wellhead. Use only herbicides that do not have ground or surface water advisories between 100 and 165 feet of wellhead. Approved herbicides include: glyphosate, imazapyr, tryclopyr, Escort,</p>			

3.3 List below the areas that have Threatened or Endangered Plant or Animal Species and the name of the species, and any special measures that need to be taken due to their presence. Attach any BAs, T&E maps, or letters from US Fish and Wildlife.

See Handbook — T&E Plant or Animal Species for requirements and determining presence.

Tacoma-Cowlitz Tap to Chehalis-Covington (See attached maps for locations)

Span		Threatened or Endangered Plant or Animal Species	Method/mitigation measures
To	From		
1/10 + 200	1/11 + 520	Salmon Restoration (Anadromous Fish) – Friends of Coulter Creek	See Below
Riparian T&E	<p>RIPARIAN T&E: BPA, county, or private lands, within 91.5 m (300 ft.) of a listed salmon or bull trout stream. Available: all manual, spot and localized herbicide, and biological treatments, except grazing. No mechanical treatments except along access roads and around structures. On slopes less than 20% there will be no soil disturbance within 35ft. of the stream or wetland. On slopes greater than 20% there will be no soil disturbance within the buffer.</p> <p>Herbicides: No herbicide treatments allowed within the buffer zone (300 ft.).</p>		

3.4 List any other measures to be taken for enhancing wildlife habitat or protecting species.

See Handbook — Protecting Other Species for requirements.

None mapped. Also, any areas in the corridor with ground to conductor clearances greater than 38.1 m (125 ft.) vertical distance will be select tree cut. This will help provide shade for salmon and other fish.

3.5 List any visually sensitive areas and the measures to be taken at these areas.

See Handbook — Visual Sensitive Areas for requirements.

None known within the project area.

3.6 List areas with cultural resources and the measures to be taken in those areas.

See Handbook – Cultural Resources for requirements.

None known within the right-of-way.

3.7 List areas with steep slopes or potential erosion areas and the measure and methods to be applied in those areas.

See Handbook – Steep/Unstable Slopes for requirements. See attached maps for exact locations.

None within the right-of-way.

3.8 List areas of spanned canyons and the type of cutting needed.

See Handbook – Spanned Canyons for requirements.

None within the right-of-way.

4. DETERMINE VEGETATION CONTROL METHODS

See Handbook — Methods

4.1 List Methods that will be used in areas not previously addressed in steps above.

See Handbook — Manual, Mechanical, Biological, Herbicides for requirements for each of the methods.

Manual: Manual control methods include the following: cutting with shears, clippers, or chainsaws; and girdling by cutting a ring around the tree. When chainsaws are used cut conifers below the lowest live limb to eliminate continued growth of the lateral branches and cut all stumps flat where possible.

Mechanical: Mechanical methods include the use of brush mowers and feller bunchers. Ground-disturbing mechanical equipment will not be used on slopes over 20% or in riparian areas (Refer to 3.1). Work will be done when the ground is sufficiently dry enough to sustain heavy equipment and minimize excessive rutting.

Herbicides: The herbicide treatments prescribed for the project area are spot stump treatment, localized basal treatment, and localized foliar treatment. Where possible the deciduous stumps will be treated to prevent resprouting. If we are unable to treat the stumps during the project, we will wait until the next growing season and do a localized foliar treatment. In areas where the trees are less than 6ft. tall and the density is light we may do a localized basal treatment.

Proposed Herbicides: Glyphosate, triclopyr (Garlon 3A and 4), imazapyr, and dicamba may be prescribed for cut-stump, stem-injection, and basal-stem treatments. In addition to the above herbicides, Escort, and clopyralid can be used for spot foliar and broadcast treatments. 2,4-d amine may be added to the list to control noxious weed species. See Tables 111-1: Buffer width to Minimize Impacts on non-target Resources, and 5-7: Herbicide Ecological Toxicities and Characteristics. (Transmission Vegetation Management EIS).

SEE CUT SHEET FOR CONTROL METHODS

5. DETERMINE DEBRIS DISPOSAL AND REVEGETATION

5.1 Describe the debris disposal methods to be used and any special considerations.

See Handbook — Debris disposal for a checkbox list and requirements.

Mulching/Mowing – This will be done on access roads and around structure sites.

Lope and Scatter – These areas are identified in the VEGETATION CONTROL PRESCRIPTION as Cut, Lope, and Scatter.

Some areas may require that the brush be chipped. These areas are identified in the VEGETATION CONTROL PRESCRIPTION as cut and treat as needed, and will depend on the requirements of the landowners.

5.2 List areas of reseeding or replanting (those areas not already described in steps 1, 2, or 3).

See Handbook — Reseeding/replanting for requirements.

Not planned at this time. However, if soil disturbance occurs during the project the area will be reseeded.

5.3 If not using native seed/plants, describe why.

Native seed will be considered in all mixes. Introduced species may be more competitive against invading tree species and protecting against erosion.

5.4 Describe timing and any follow-up that will need to take place to ensure germination/success of seeding/planting.

Not planned at this time. However, if reseeded is necessary it will take place in the fall just before the fall rains.

6. DETERMINE MONITORING NEEDS

See handbook — **Monitoring** for requirements.

6.1 Describe the follow-up/monitoring cycle that will be used to evaluate the effectiveness of the vegetation control methods used.

The project area will be inspected during treatment. In addition, it will be reviewed during routine patrols by the line crew and within one year by the NRS.

6.2 Describe any follow-up or monitoring needed to determine if mitigation measures were effective.

Will review during line patrol by the line crew and within one year by the NRS.

7. PREPARE APPROPRIATE ENVIRONMENTAL DOCUMENTATION

See handbook — **Prepare Appropriate Environmental Documentation** for requirements.

7.1 Describe any potential project impacts or project work that are different than those disclosed in the Transmission System Vegetation Management Program EIS. Describe how those differences impact natural resources and if the differences are “substantial”.

Effects are expected to be the same or less than the description provided in the EIS.

7.2 Is there a need for additional NEPA documentation (i.e. Forest Service requirement, Record of Decision, supplemental EIS)? If so, attach.

No